THE NAUTILUS.

Voluta pinguis Dillw., Cat. Recent Shells, i, 516, 1817.
Oliva (Olivancillaria) brasiliana Tryon, Manual Conch., v, 90, pl. 36, f. 88.

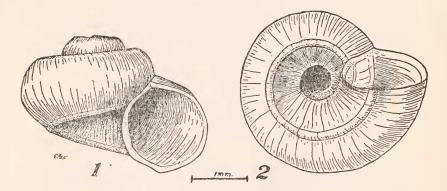
TWO NEW VARIETIES OF VALVATA.

BY E. G. VANATTA.

VALVATA TRICARINATA INFRACARINATA n. var. fig. 1, 2.

Shell globose, depressed, translucent, early whorls orange colored, body-whorl greenish gray, spire moderately elevated, apex obtruse, suture linear, whorls $3\frac{1}{4}$, rapidly increasing, last whorl flattened above, with an impressed line near the suture, slightly angular at the shoulder, periphery rounded, surface polished, provided with irregular growth lines. Umbilicus wide, deep, funnel-shaped, surrounded by a strong carina. Aperture oblique, orbicular, slightly angular at the suture and base, parietal wall short, lip thin.

Alt. 2.53 diam. 3.48 apert. alt. 1.74 diam. 1.55 mm.



Type in the collection of the Academy of Natural Sciences number 12087 from White Pond, New Jersey, collected by Dr. H. A. Pilsbry and Mr. S. N. Rhoads in 1895. Also in the collection from Hamilton, Ontario (Robert Walton); Mohawk, New York (Dr. James Lewis); Post Pliocene at Halcyon Lake,

THE NAUTILUS.

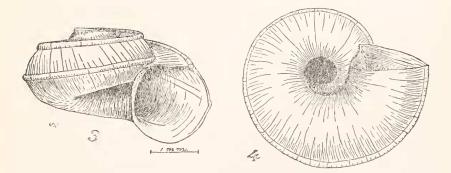
Duchess Co., New York (W. S. Teator); Post Pliocene at White Pond, New Jersey (Dr Joseph Leidy); and Saginaw Bay, Michigan (Prof. M. Miles.)

Differs from V. t. simplex Gld by having a basal carina and from V. t. confusa Wkr. by lacking a keel at the shoulder.

VALVATA TRICARINATA BASALIS n. var. figs. 3, 4.

Shell discoidal, thin, translucent, greyish corneous, spire truncate, slightly elevated, apex impressed, suture linear, shallow. Whorls 34, the first ones with a median carina, bodywhorl slightly descending at the aperture, with two strong carinæ, the upper surface between the suture and the shoulder keel flat, slightly convex between this and the peripheral carina, base evenly rounded to the rather large deep umbilicus, surface rather dull, sculptured with irregular growth striæ. Aperture irregularly truncate orbicular, lip thin, angular at the suture, upper carina and peripheral keel ; base and columella evenly arcuate, upper lip straight.

Alt. 2.56 diam. 4.15, apert. alt. 1.69, diam. 1.74 mm.



Type in the collection of the Academy of Natural Sciences number 11995 from the Hudson River, New York (W. M. Gabb). Also in the collection from Vermont (J. S. Phillips).

Differs from *V. tricarinata* Say by lacking the basal carina, and from *V. t. confusa* Wkr. by the absence of a basal keel and in having a peripheral carina.

THE NAUTILUS.

LAND SHELLS FROM VARADERO (CARDENAS) CUBA.

BY JOHN B. HENDERSON.

Varadero is a little settlement of winter cottages planted in the sands of a long narrow peninsula that encloses the Bay of Cardenas. There is a core of pleistocene coral rock more or less densely covered with scrub growth with many cacti as a feature. Besides this there is only the beach sand on the one side and mangrove swamps on the other making altogether a most uninviting field for land-shelling. The following list represents only a few hours collecting but is probably almost a complete census of the region.

Oleacina solidula Pfr. '' subulata Pfr. Obeliscus homalogyra Shuttl Varicella (Pich.) gracillima Pfr. Thysanophora selenina Gould '' boothiana Pfr. Volvidens tichostoma Pfr. Cepolis cubensis penicillata Urocoptis poeyana variegata Pfr. '' garceana Presas (var) Macroceramus gundlachi Pfr. Microceramus gossei Pfr.

" denticulatus Gundl.

Cerion sagraianum Pfr. '' 'hologlyptum Pils. Liguus fasciatus Mull. Guppya gundlachi Pfr. Pupoides marginatas Say Bifidaria sp. Chondropoma pictum Pfr. '' dentatum Say Alcadia hispida Pfr. Eutrochatella rupestris Pfr.

STUDIES IN NAJADES.

BY DR. A. E. ORTMANN.

LASTENA LATA (Rafinesque).

Simpson, Pr. U. S. Mus. 22. 1900 p. 654.—Descr. Cat. 1914 p. 453.

I have collected a number of specimens in Clinch River, at Cleveland, Russel Co., Va., and at St. Paul, Wise Co., Va., among them three gravid females (May 13 and 14, 1913), one